XIII. On the Larva of Micropeplus Staphylinoides. By Sir John Lubbock, Bart., F.R.S., V.P.L.S., V.P. and late Pres. Ent. Soc.

[Read 6th July, 1868.]

Whilst looking for Thysanura I have several times, though not often, met with the curious little Coleopterous larva, which is figured in the accompanying plate (Plate

XIII.)

As it appeared to differ from any larva of which I could find a description, I endeavoured to breed it, and at the commencement of March, a specimen, which I had found in January, came to maturity, and turned out to be a *Micropeplus*. The true position of this genus being a matter of some doubt, and the larva therefore of considerable interest, I forwarded the specimen to my friend Mr. Janson, in order that I might be sure about the species, and he has favoured me with the following letter.

"The little beetle pertains to the genus Micropeplus of Latreille, and is I believe the M. Staphylinoides of Marsham (Nitidula Staphylinoides, Marsh. Ent. Brit. 137). The earlier stages of Micropeplus appear to be entirely unknown. Prior to Erichson, great diversity of opinion existed as to its affinities, some authors referring it to the Nitidulidæ, and others to the Brachelytra. Erichson, however, located it in his eleventh group, Proteinini, of the Staphylinini, remarking (Gen. et Spec. Staph. 911) 'Corporis habitus singularis, sculptura singulari, præterea antennis capitulatis, receptis, et pedibus intermediis late distantibus; insigne hoc genus, a multis auctoribus perparum Nitidulis adscriptum,' and I believe all subsequent systematic writers have accepted his views. Lacordaire (Genera des Coléop. ii. 150) observes, 'Genre ambigu, tenant manifestement par son facies et ses antennes aux Nitidulaires, parmi lesquels Herbst, Latreille, Dejean, etc., l'ont placé; mais ses organes buccaux, construits exactement sur le même plan que ceux des Omalides, démontrent qu'il appartient à la famille actuelle [Staphyliniens] comme l'ont pensé la majorité des entomologistes dépuis Fabricius inclusivement jusqu' à Erichson.' these circumstances, a knowledge of the earlier state of your little beetle would be especially valuable."

Unfortunately, we are acquainted with very few larvæ either of the Nitidulidæ or of the Brachelytra. Messrs. Chapuis & Candèze, in their learned memoir on the larvæ of Coleoptera,* mention only three species in the whole family Nitidulidæ, the larvæ of which are known to us. Of these, one, that of Epurea obsoleta, is described by Bouché,† but so shortly, that they do not think it worth while to quote it; the second, Pocadius ferrugineus, is also described by Bouché,‡ but there is some doubt about the identification. Consequently the larva of Nitidula grisea is the only one which can really be said to be known to us.

Nor is our knowledge of the Brachelytrons larvæ much more complete. Out of the whole number, less than twenty are as yet known, so that Messrs. Chapuis and Candèze say, 'le nombre des larves de cette grande famille decrites jusqu'à ce jour est très peu de chose, ce qui s'explique en partie par la difficulté qu'il y a à se les procurer, et surtont à les conserver vivantes jusqu' à

leur entier developpement."

Under these circumstances it would not be safe to rely too much on the characters afforded by the larva of Micropeplus. Nevertheless the larvæ of the Brachelytra hitherto known are active, elongate, and provided with two bi-articulate, mobile, anal appendages. They differ therefore considerably from our larva, which is oval, sluggish, and without the anal appendages. So far therefore, the larval characters would seem to tell in favour of those who place Micropeplus among the Nitidulidæ, rather than among the Brachelytra.

I have found it on the under-side of dead boughs. The colour is light brown, the length about one-fifteenth of an inch. The general outline of the body is oval. The skin is granular. The lateral margins of the segments are produced, and each bears at its extremity a curious leaflike yellowish process. The posterior margin of each segment is also armed with a row of thick spines, decreasing in size towards the middle line; these spines are, with the exception of the outer ones, armed with lateral

^{*} Mémoires de la Société Royale des Sciences de Liège, 1853, vol. viii. p. 347.

[†] Naturg. der Insect. 1834, p. 188.

I Ibid.

^{||} Mém. Soc. Roy. Sci. Liège, viii. 395.

teeth. The margins of the three first segments after the head are bifurcate. The anterior fork of the first bears a stout seta, the posterior one, as well as both processes of the two following segments, bear foliated appendages

like those of the abdominal segments.

The lateral expansions of the middle segments stand out at right angles to the longer axis of the body, but they gradually turn round, so that those of the terminal segment point backwards, only diverging a little from one another. Besides the foliated appendage, this segment bears at each extremity, a stout, rodlike, not very long seta.

The accompanying figure (Plate XIII) obviates the

necessity for any detailed description.

The antennæ are four-jointed, short and tapering. The third segment, counting from the base, bears three small hairs, and a strong slightly-curved process, which is somewhat longer than the apical segment. The terminal segment bears a tuft of hairs, and a strong spine at the apex, and a hair at each side near the middle. None of the hairs on this segment taper to a point, but all end somewhat abruptly.

The legs are short, and all six similar to one another. The claw is simple but strong. The segment preceding it is slightly conical, and bears several curious pairs of spines, or rather perhaps bifurcate spines, as well as a

few hairs.

There are no anal styles.

Explanation of Plate XIII.

Fig. 1.	Larva of Micropeplus	Staphylinoides,	×	56.
2.	Antenna ,,	17	×	250.
3.	Hind foot ,,	,,		,,
4.	Fan-shaped process	,,		,,
5.	,, ,,	77		91
6.	Rodlike hair "	,,		,,
7.	Curved hair ,,	,,		,,